

CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove six screws holding cabinet back and lift back from set. Disconnect CRT socket, HV anode lead, speaker wires, and ground wires. Loosen and remove deflection yoke from neck of CRT. Slide main PC board from cabinet. CRT can be removed at this point of disassembly. Remove all knobs from cabinet front. Remove four screws holding tuner assembly and lift assembly from cabinet.

CRT REMOVAL

Follow "Chassis Removal" procedure and lay set face down on a soft protective surface. Loosen and remove CRT retaining wire. Lift CRT from cabinet. Do not lift CRT by the neck.

SERVICING IN THE FIELD

CRT IMPLOSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A .5-amp fuse is used for AC line protection. (See Placement Chart.)

VHF TUNER

The fine tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

UHF TUNER

The UHF tuner employs a detent mechanism for channel selection. Fine tuning is adjusted by rotating the fine tuning knob.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horiz hold coil. (See photo, Cabinet-Rear View.)

WIDTH

The width may be varied by connecting the width jumper to various width points. (See Placement Chart.)

FOCUS

The focus may be varied by connecting the focus lead to various focus points. (See Placement Chart.)

AGC

The AGC may be varied by AGC and RF AGC controls. (See Placement Chart.)

CENTERING

Centering is accomplished by proper adjustment of two magnetic rings located on the yoke rear cover.

SET 1694 FOLDER 2

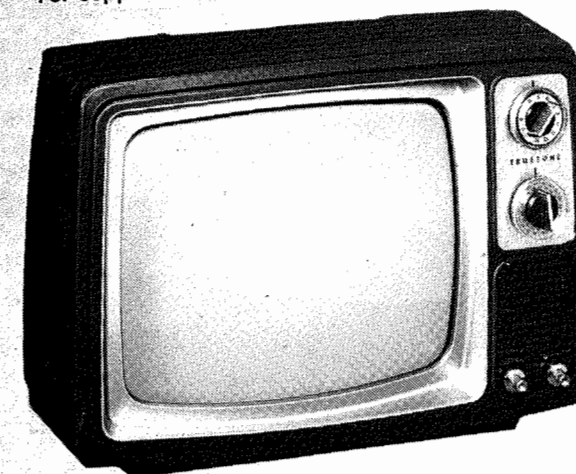
TRUE TONE MODEL
SCJ3712A-77

PHOTOFACT® Folder

with CIRCUITRACE™

TRUE TONE MODEL
SCJ3712A-77

For Supplier Address See PHOTOFACT Index



MODEL SCJ3712A-77 (24-3712-7)

SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set. Check high-voltage regulation and adjust to correct value.

Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

CAUTION: One side of AC line connected to chassis. Use isolation transformer for servicing. Make certain isolation networks are in place and exposed metal is safe to touch before returning set to customer.

INDEX

	Page		Page
Alignment		Photos (Continued)	
TV.....	4	Tuner Assembly.....	23
Disassembly Instructions.....	24	Placement Chart.....	5
Miscellaneous Adjustments.....	20	Resistance Measurements.....	20
Parts List		Schematics	
TV.....	11 thru 15	TV.....	2,3
Photos		UHF Tuner.....	22
Cabinet-Rear View.....	24	VHF Tuner.....	22
Chassis-Top View.....	21	Servicing in the Field.....	24
Printed Board.....	6 thru 10, 16 thru 19	Troubleshooting Check Chart.....	20

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed.

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1977 Howard W. Sams & Co., Inc., Indianapolis, Indiana 46206. Printed in U. S. of America

7PC1929R

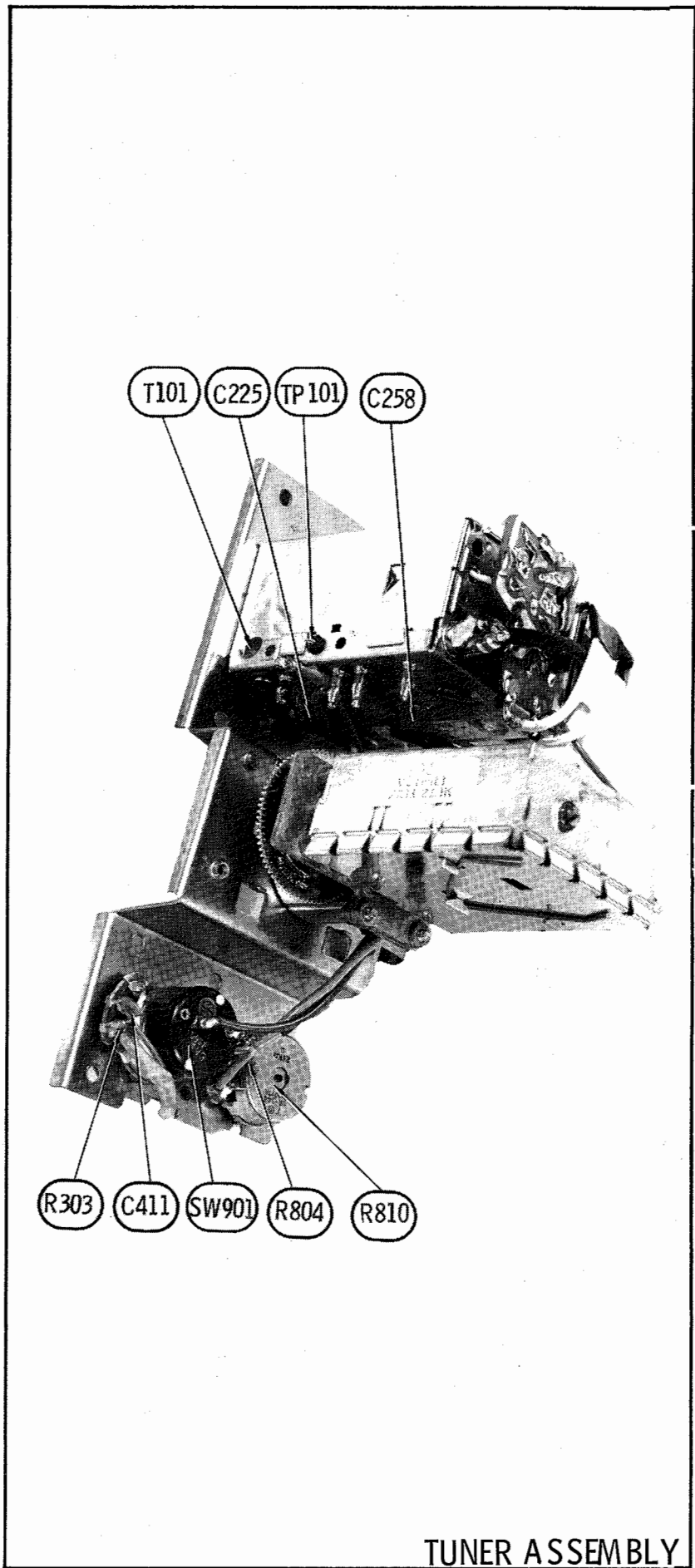
DATE 11-77

SET 1694 FOLDER 2

TRUE TONE MODEL
SCJ3712A-77

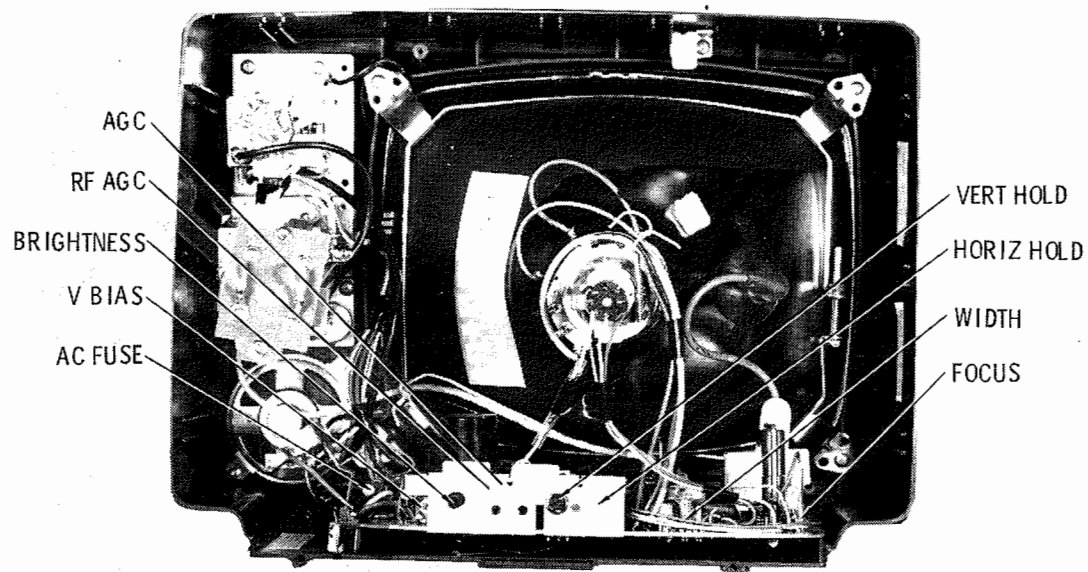
TRUE TONE MODEL
SCJ3712A-77

SET 1694 FOLDER 2



TRUETONE MODEL
SCJ3712A-77

FOLDER 2



CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove six screws holding cabinet back and lift back from set. Disconnect CRT socket, HV anode lead, speaker wires, and ground wires. Loosen and remove deflection yoke from neck of CRT. Slide main PC board from cabinet. CRT can be removed at this point of disassembly. Remove all knobs from cabinet front. Remove four screws holding tuner assembly and lift assembly from cabinet.

CRT REMOVAL

Follow "Chassis Removal" procedure and lay set face down on a soft protective surface. Loosen and remove CRT retaining wire. Lift CRT from cabinet. Do not lift CRT by the neck.

SERVICING IN THE FIELD

CRT IMPLOSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A .5-amp fuse is used for AC line protection. (See Placement Chart.)

VHF TUNER

The fine tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

UHF TUNER

The UHF tuner employs a detent mechanism for channel selection. Fine tuning is adjusted by rotating the fine tuning knob.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horiz hold coil. (See photo, Cabinet-Rear View.)

WIDTH

The width may be varied by connecting the width jumper to various width points. (See Placement Chart.)

FOCUS

The focus may be varied by connecting the focus lead to various focus points. (See Placement Chart.)

AGC

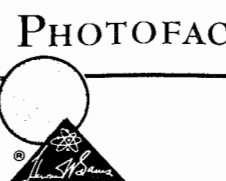
The AGC may be varied by AGC and RF AGC controls. (See Placement Chart.)

CENTERING

Centering is accomplished by proper adjustment of two magnetic rings located on the yoke rear cover.

SET 1694 FOLDER 2

TRUETONE MODEL
SCJ3712A-77



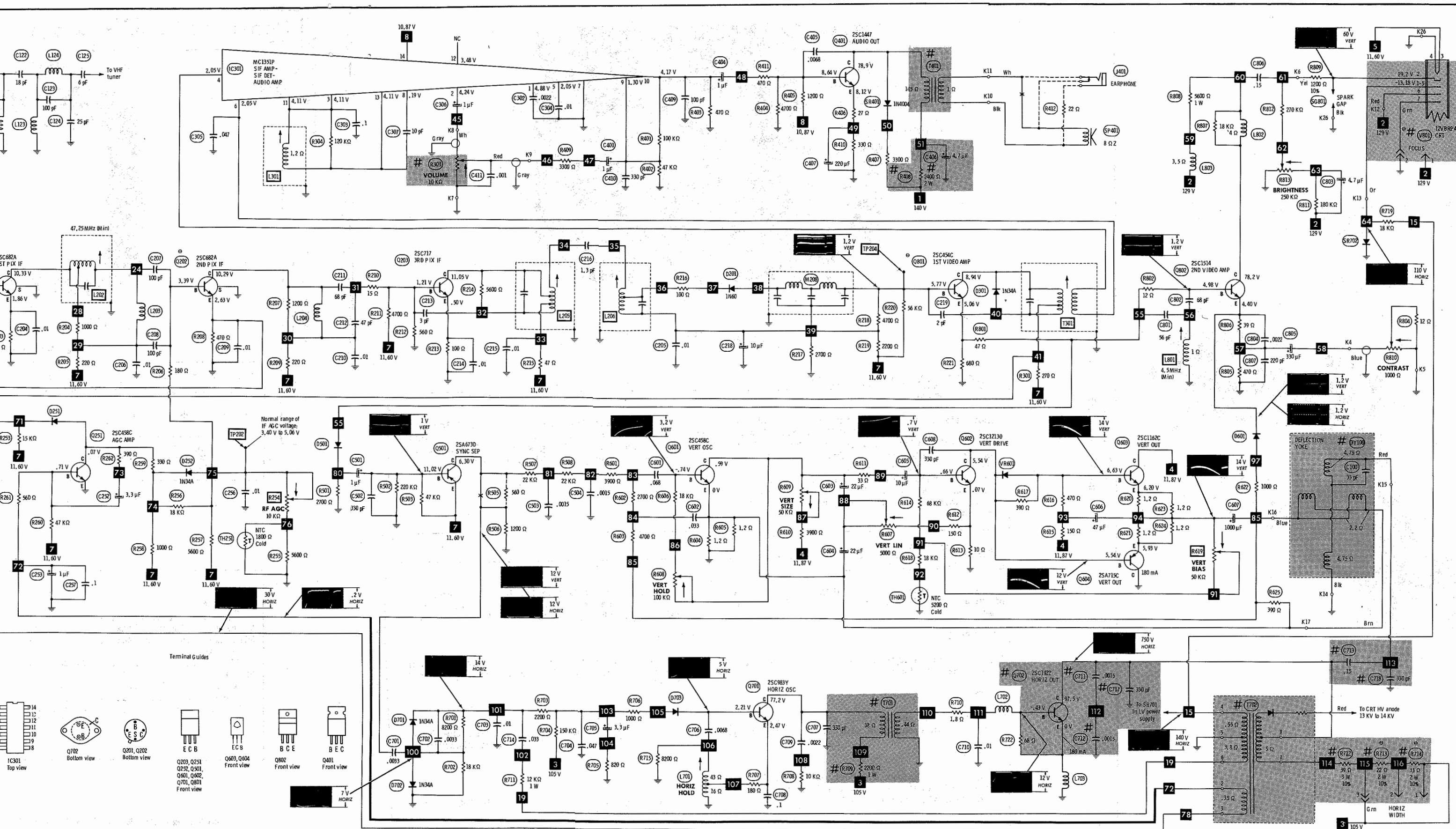
Make sure line
Check high-v
value.
Be sure shie
secure.

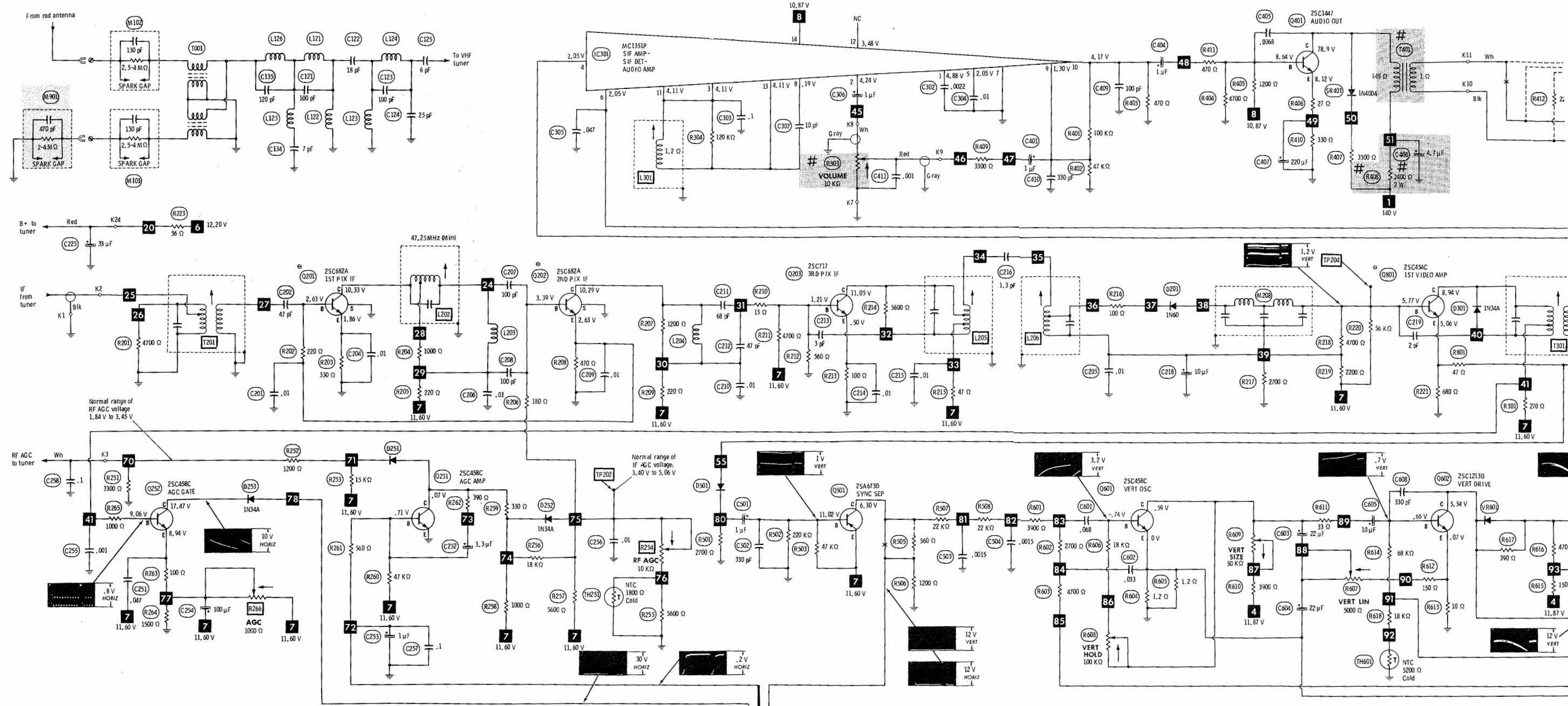
CAUTION: One
Mak
to c

Alignment
TV.....
Disassembly
Miscellaneous
Parts List
TV.....
Photos
Cabinet-R
Chassis-T
Printed B



HOV
The listing of any
tute in any case a
W. Sams & Co., In
ment part. The n
information furnis
facturers of the p

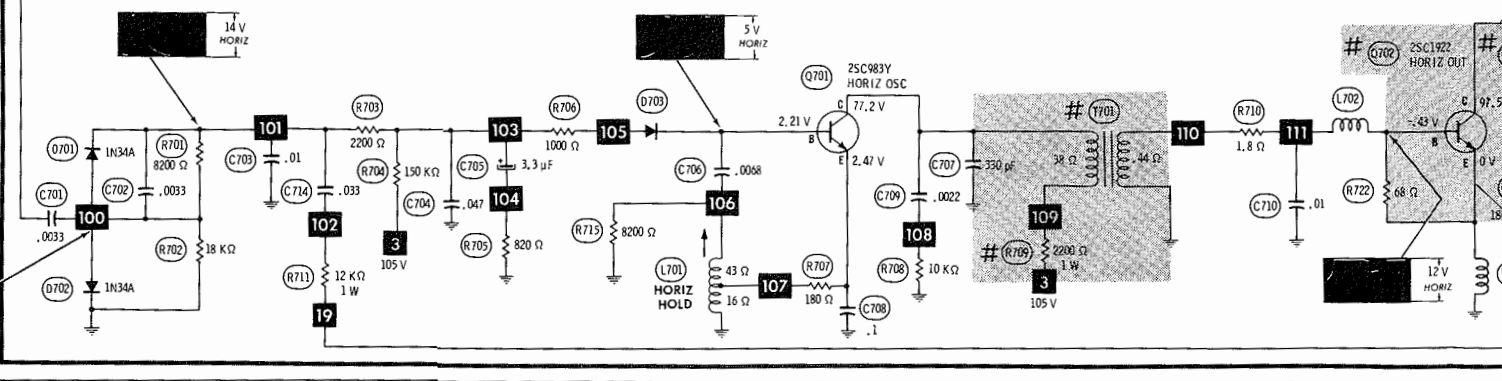
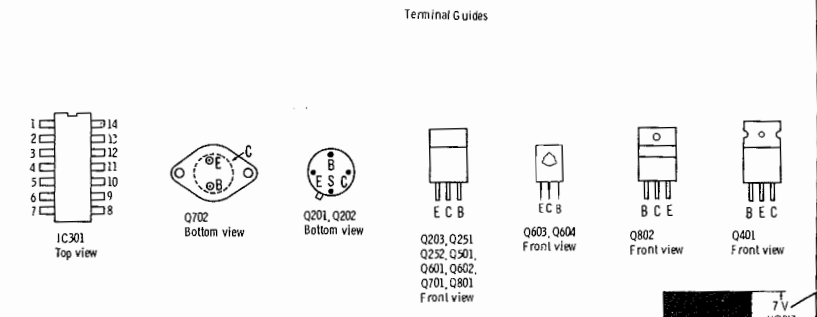


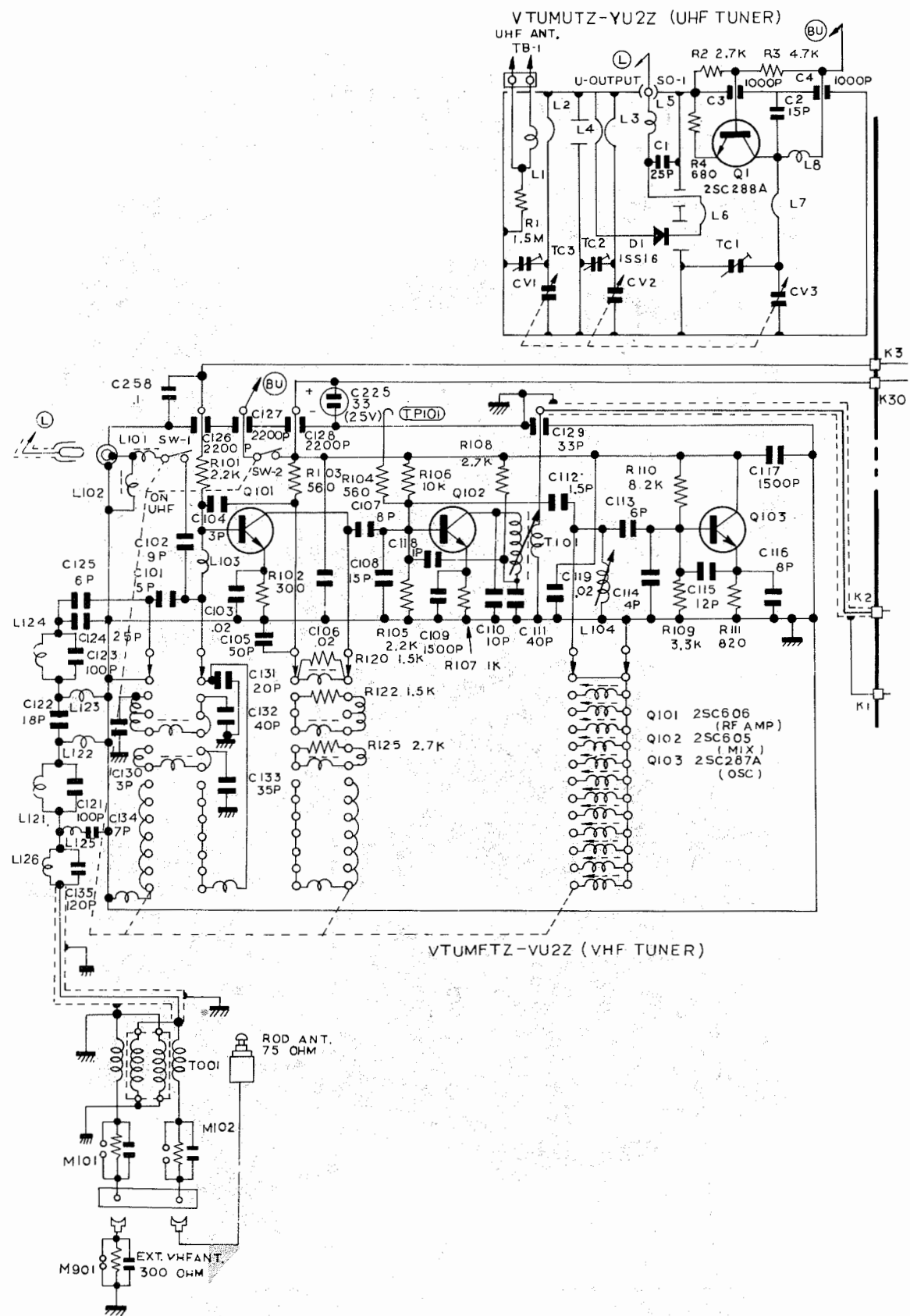


For SAFETY use only equivalent replacement part.

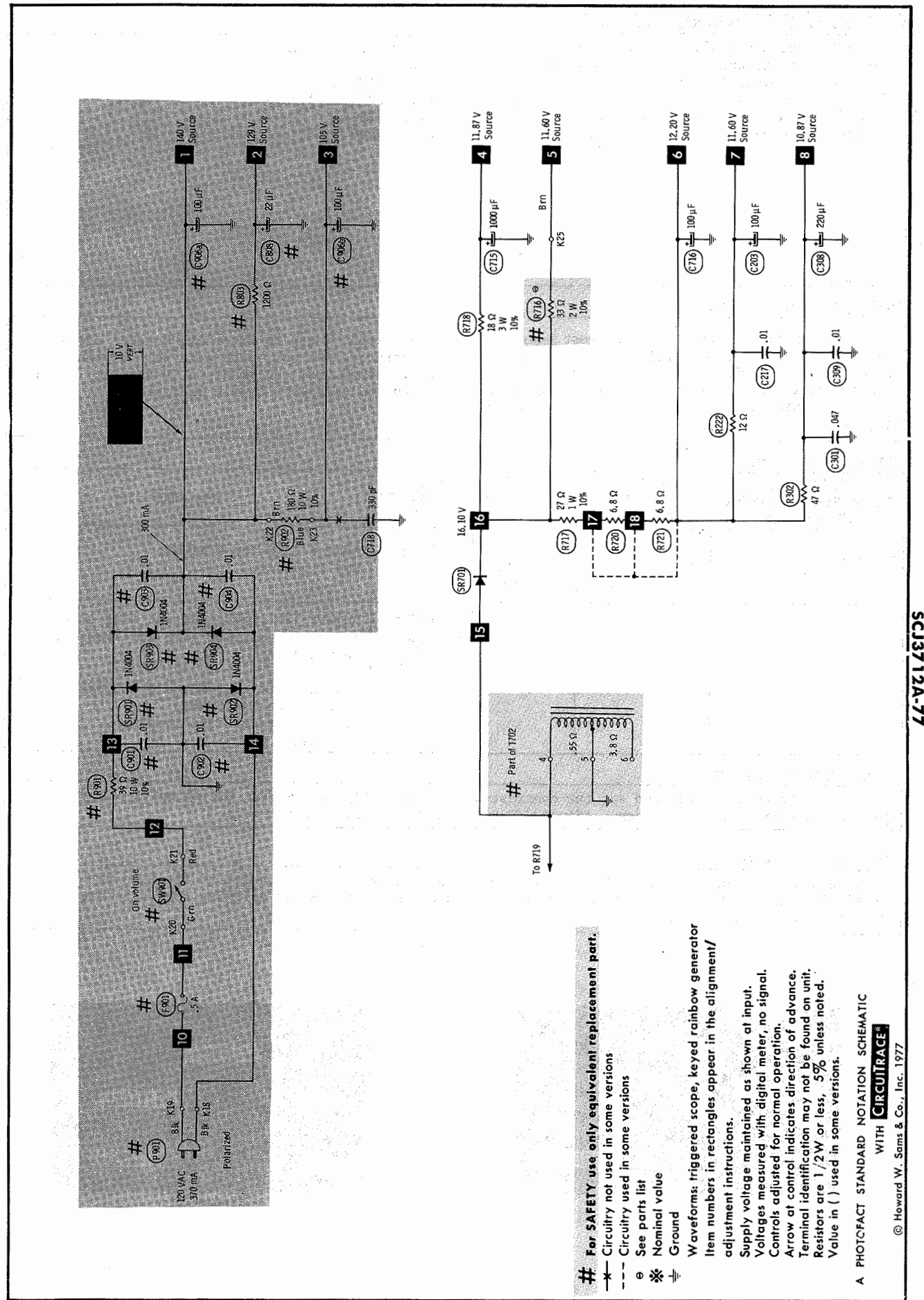
- Circuitry not used in some versions
- - - Circuitry used in some versions
- ⊙ See parts list
- * Nominal value
- ⊥ Ground

Waveforms: triggered scope, keyed rainbow generator
 Item numbers in rectangles appear in the alignment/adjustment instructions.
 Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Arrow at control indicates direction of advance.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.





Courtesy of the Manufacturer



For SAFETY use only equivalent replacement parts.
 - Circuitry not used in some versions
 - See parts list
 - Nominal value
 - Ground
 - Waveforms: triggered scope, keyed rainbow generator
 - Item numbers in rectangles appear in the alignment/adjustment instructions.
 - Supply voltage maintained as shown at input.
 - Voltages measured with digital meter, no signal.
 - Controls adjusted for normal operation.
 - Arrow at control indicates direction of advance.
 - Terminal identification may not be found on unit.
 - Resistors are 1/2W or less, 5% unless noted.
 - Value in () used in some versions.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
 WITH CIRCUTRACE
 © Howard W. Sams & Co., Inc. 1977

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.

Suggested Alignment Tools:

T101 (VHF Output).....	GC ELECTRONICS 9296,9297,9300
L301,T301.....	9293
L202,L205,L206,L801,T201.....	9440

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from that shown. Connect a +4.8 volt bias to TP202.

VIDEO IF ALIGNMENT

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP204.	To TP1 on VHF tuner.	44MHz (10MHz Sweep)	47.25MHz	Adjust L202 for MINIMUM. See Figure 1.
"	"	"	42.17MHz 44.00MHz 45.75MHz 47.25MHz	Adjust T201,L205,L206 and T101 (VHF Tuner) for maximum gain and symmetry of response. T201 affects 42.17MHz and 45.75MHz. L205 affects 44.00MHz. T101 affects overall response. See Figure 2.

4.5MHz TRAP ALIGNMENT

Tune in a strong TV signal and set the contrast at maximum. Adjust the fine tuning until a beat pattern is visible on the screen. Adjust L801 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust T301 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting L301.

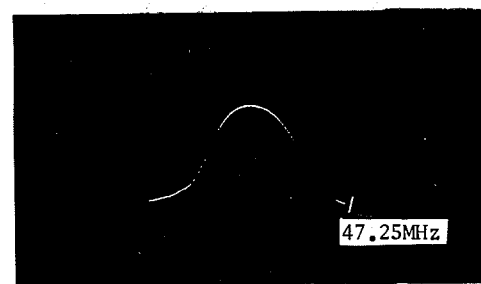


Figure 1

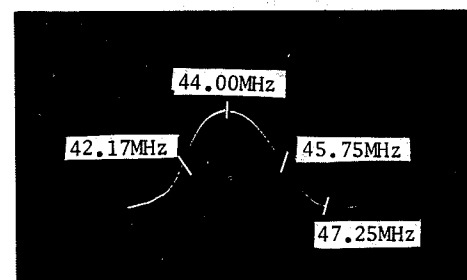
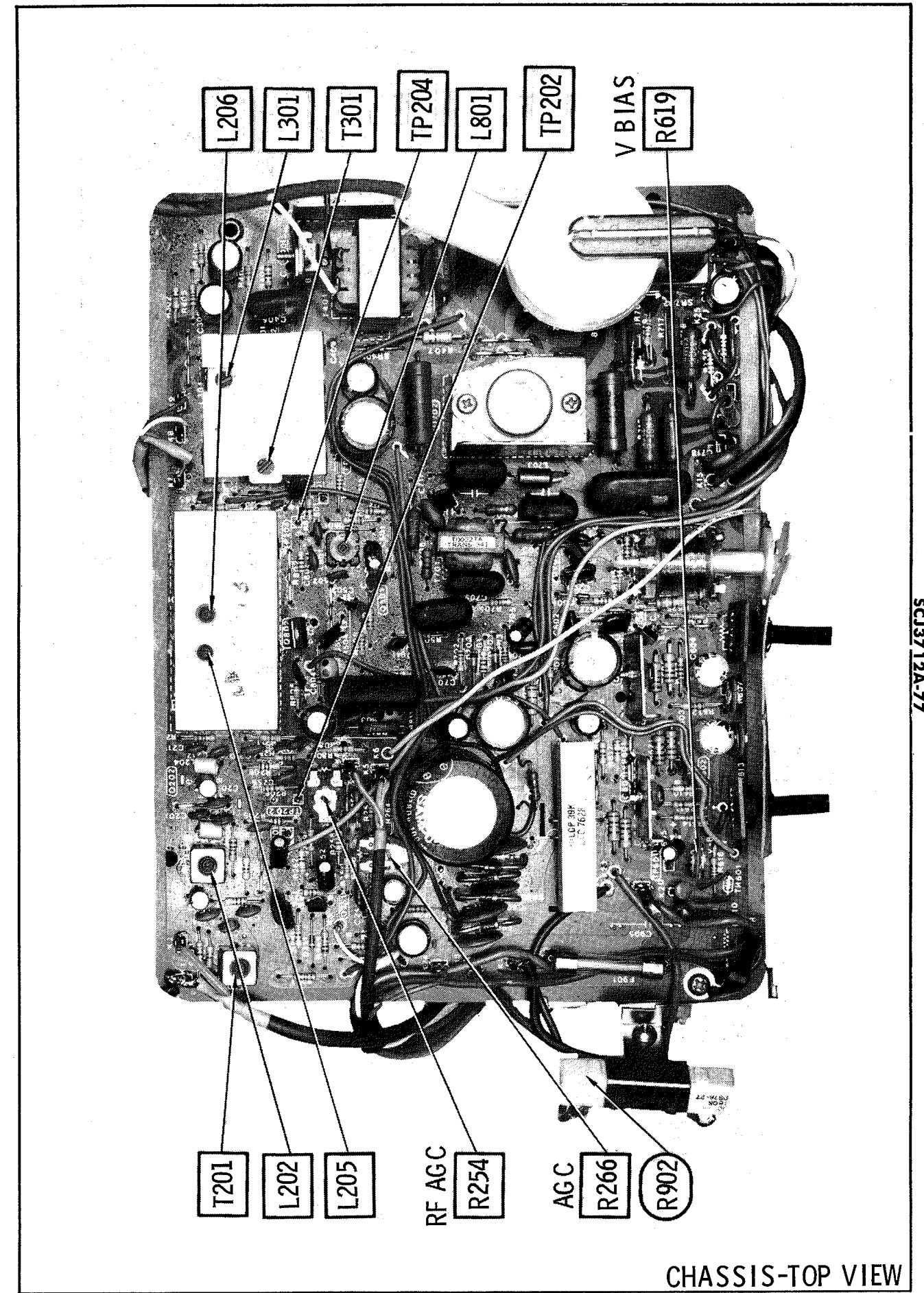


Figure 2



CHASSIS-TOP VIEW

RESISTANCE MEASUREMENTS

MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS														
ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	PIN 14
V801	18K	323K	FIL	FIL	NC	120K(1)	0							
IC301	9900	4700	2800	INF	4200	INF	0	50	32K	470	2800	2400	2800	130
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
Q201	330	690	310		Q401	357	1050	110K(1)		Q604	30K	1060	0	
Q202	470	1700	310		Q501	90	38K	1180		Q701	196	INF(2)	90K(1)	
Q203	100	500	135		Q601	.6	80K	15K		Q702	0	2.2	90K(1)	
Q251	0	47K	1350		Q602	10	88K	1060		Q801	680	4500	360	
Q252	500	1360	INF(2)		Q603	30K	680	60		Q802	510	740	120K(1)	

(1) This reading will vary depending upon the condition of the electrolytic in the circuit.
(2) Reading depends upon polarity of meter connections.

MISCELLANEOUS ADJUSTMENTS

AGC ADJUSTMENT

Tune in a strong station. Adjust the AGC Control (R266) until instability appears in the picture (pulling, jitter, overload, etc.). Adjust the control to the point just below the instability.

Tune in a weak station and adjust RF AGC Control (R254) for MINIMUM snow and maximum contrast.

VERTICAL BIAS ADJUSTMENT

Adjust Vertical Size and Vertical Linearity Controls until the top and bottom of the picture are visible. Adjust Vertical Bias Control (R619) until there is no foldover at either the top or bottom of the screen. Re-adjust Vertical Size and Vertical Linearity Controls.

TROUBLESHOOTING CHECK CHART

The following chart lists component failures most likely to produce the indicated symptom.

SWEEP

NO RASTER, HAS SOUND: HV Rect (T702), CRT
NO RASTER, NO SOUND: Horiz Osc/Output, D703
NO VERT DEFLECTION: Vert Osc/Drive/Outputs, VR601

POOR VERT LIN OR FOLDOVER: Vert Drive/Outputs, VR601

POOR HORIZ LIN OR FOLDOVER: Horiz Osc/Output, D703

NARROW PICTURE: Horiz Osc/Output
VERT OFF FREQ: Vert Osc
HORIZ OFF FREQ: Horiz Osc, D701, D702, D703

SYNC

NO VERT SYNC: Vert Osc
NO HORIZ SYNC: Horiz Osc, D701, D702
NO VERT/HORIZ SYNC: Sync Sep, D501

PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Fuse, SR901, SR902, SR903, SR904, SR701

NO PIC, NO SOUND, HAS RASTER: Tuner, 1st/2nd/3rd Pix IFs, 1st Video Amp, D201

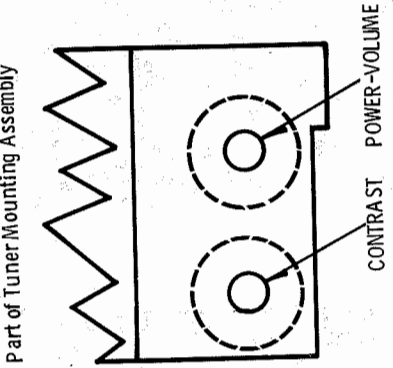
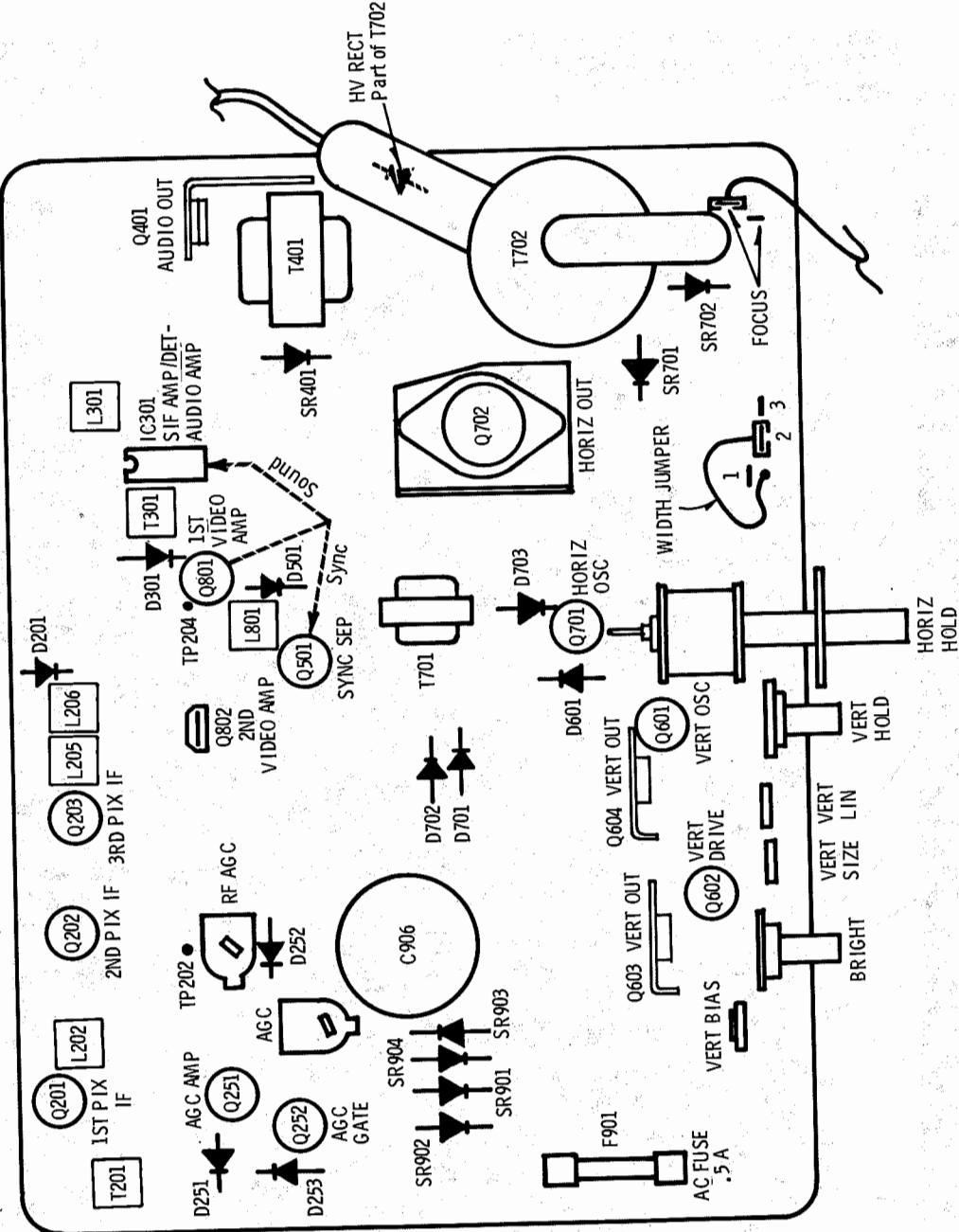
NO PIC, NO SOUND, HAS SNOW: Tuner, AGC Amp/Gate
NO PIC, HAS SOUND, NO RASTER: 2nd Video Amp, SR701, D601

NO PIC, HAS SOUND, HAS RASTER: 1st/2nd Video Amp, D201

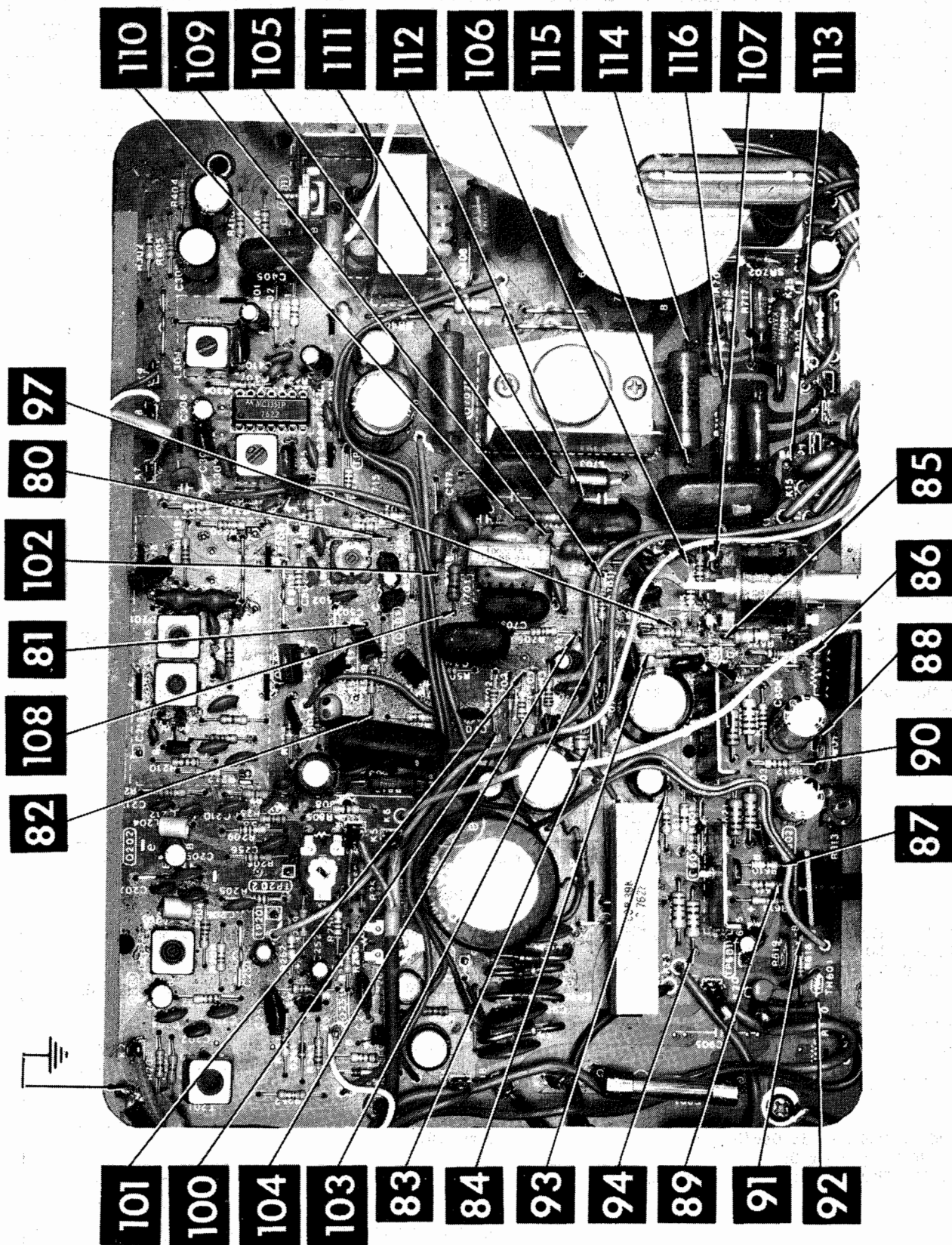
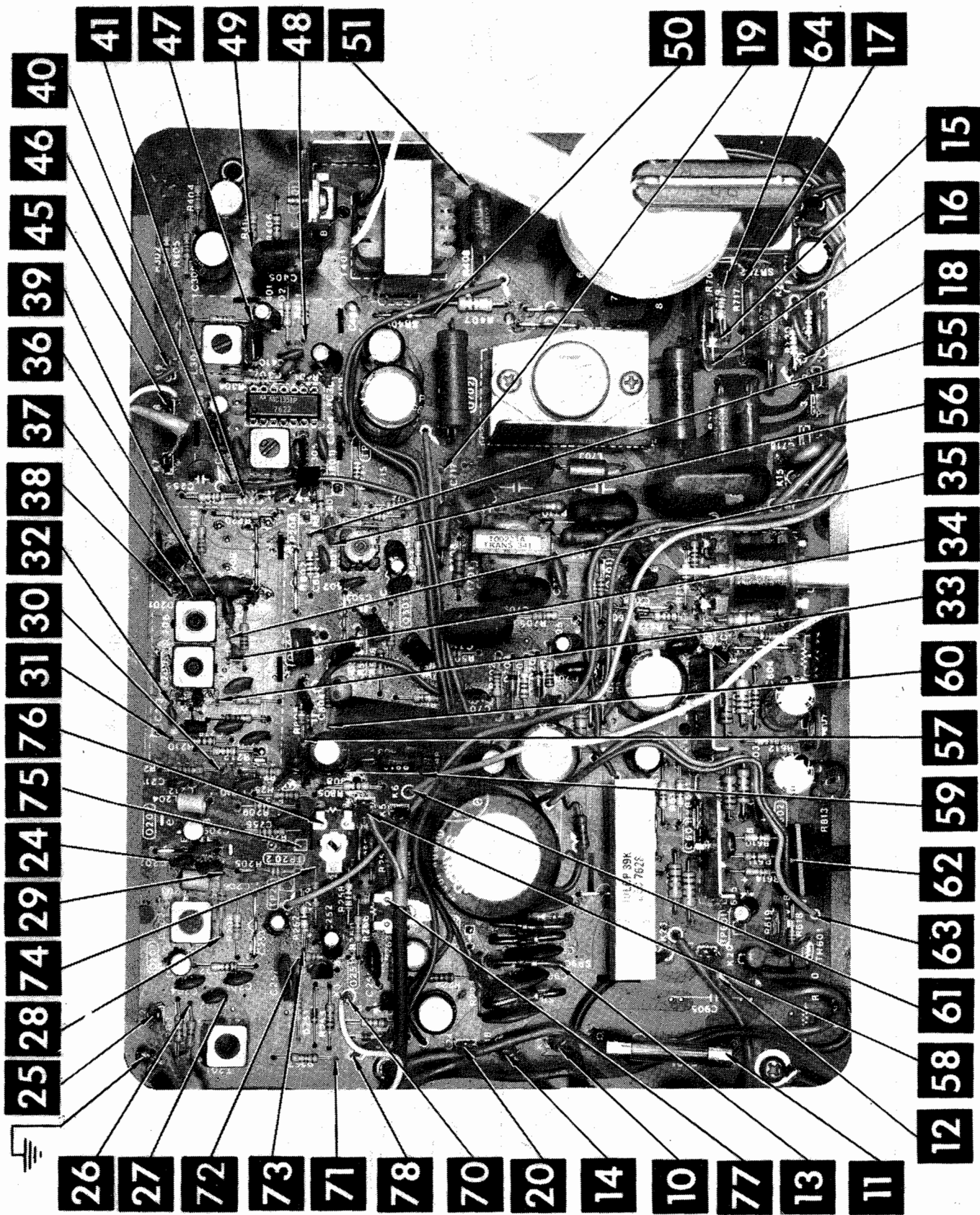
HAS PIC, NO SOUND: SIF Amp-SIF Det-Audio Amp, Audio Out

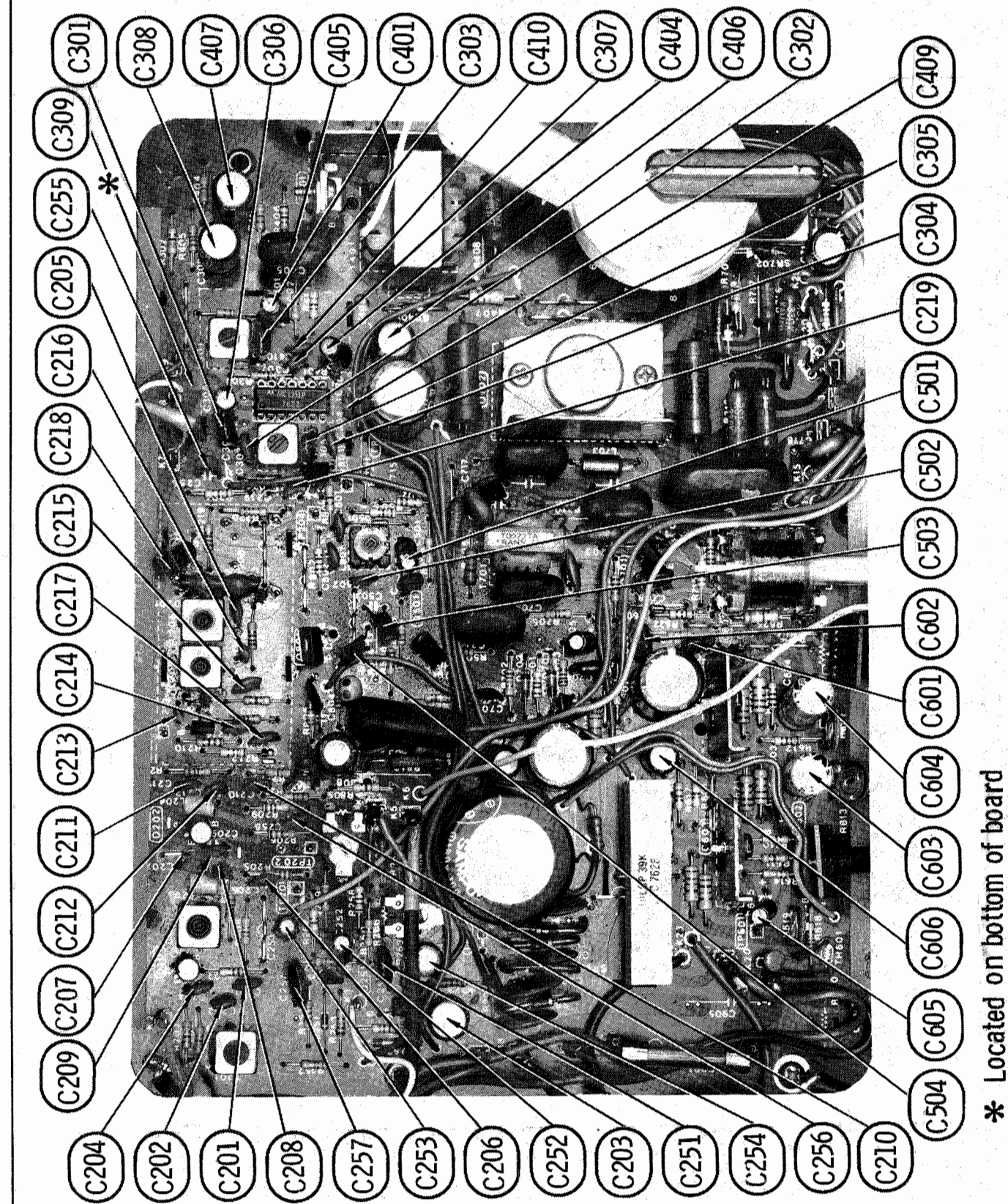
OVERLOADED PICTURE: AGC Amp/Gate, D201

TOP VIEW

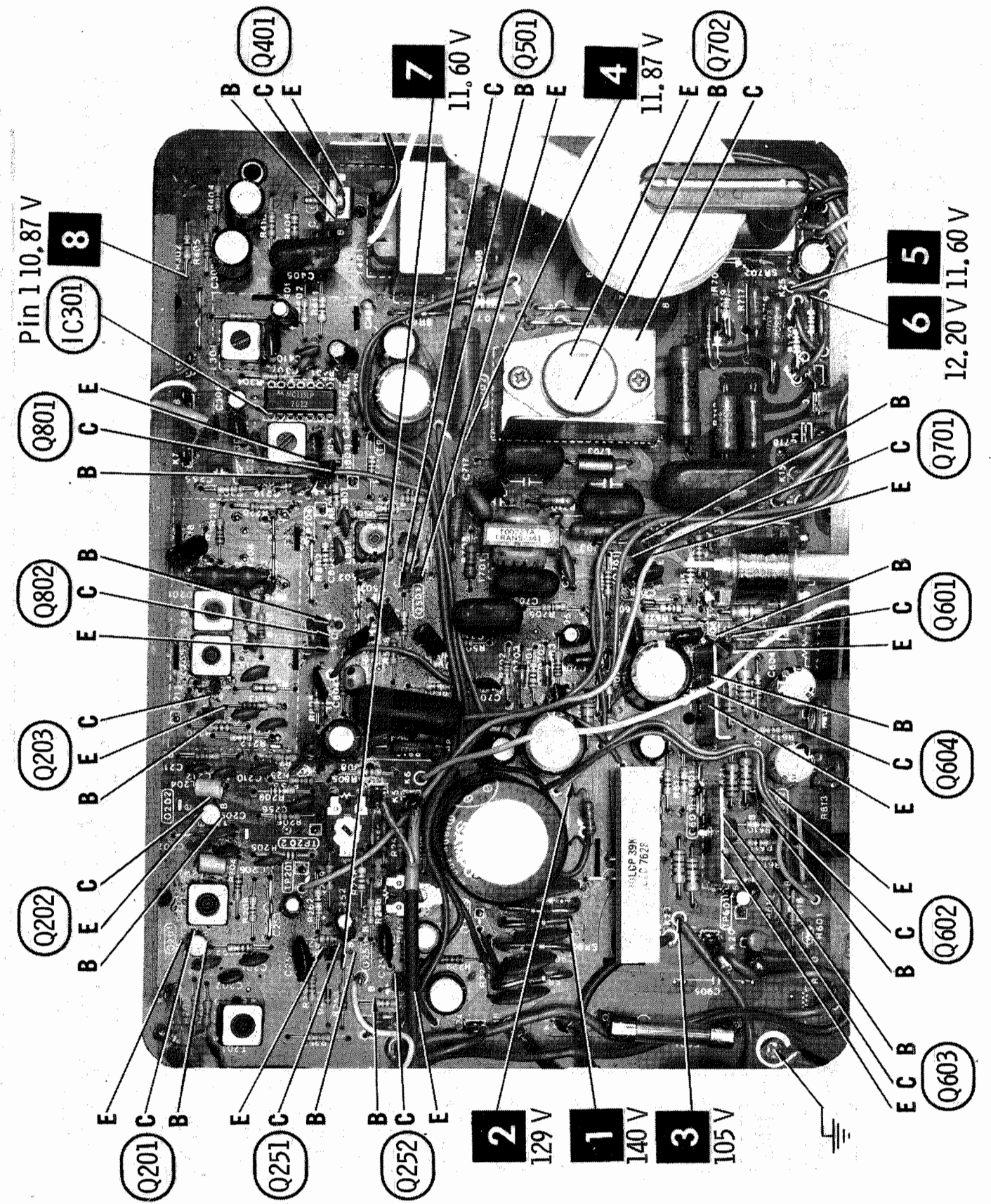


PLACEMENT CHART

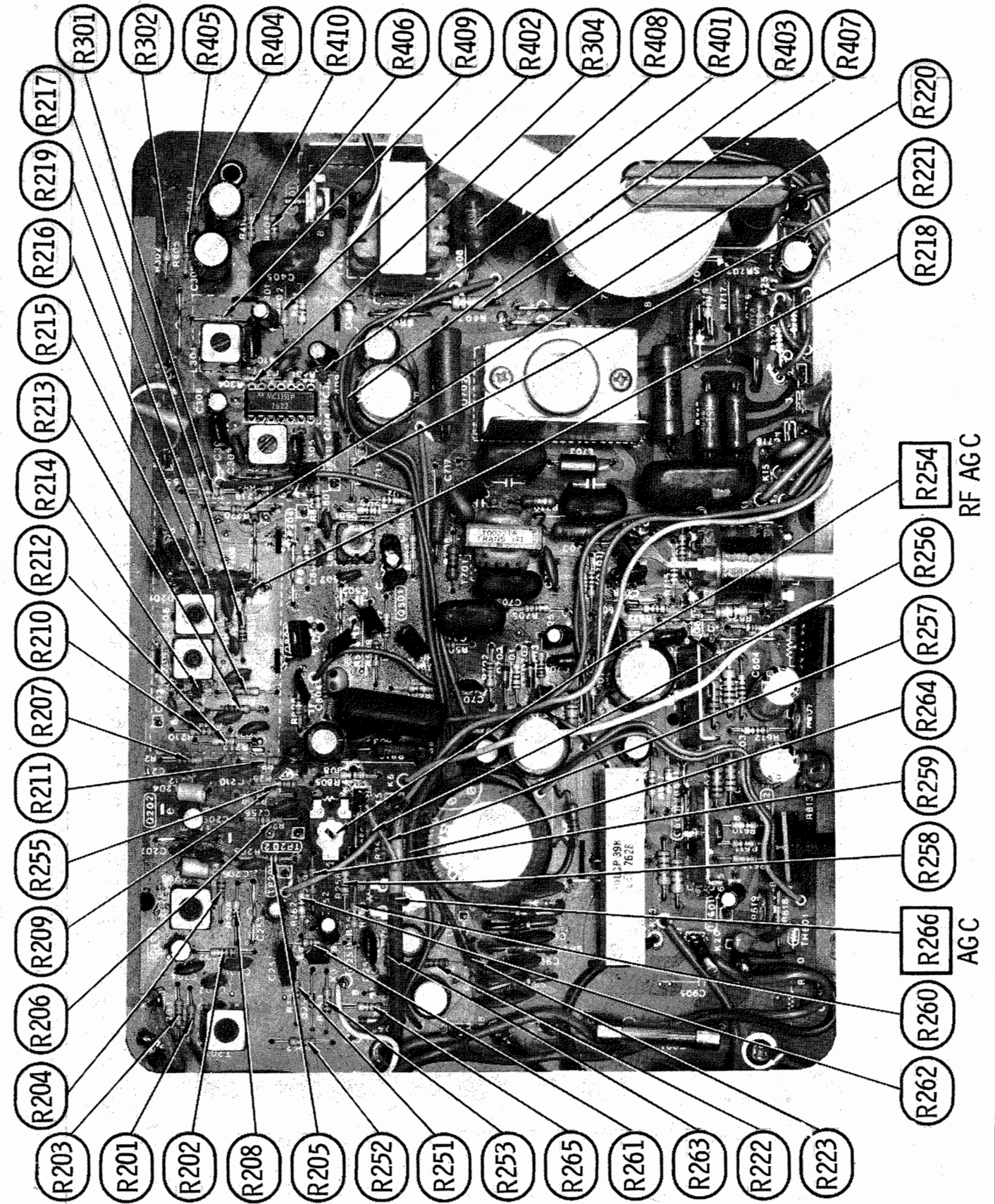
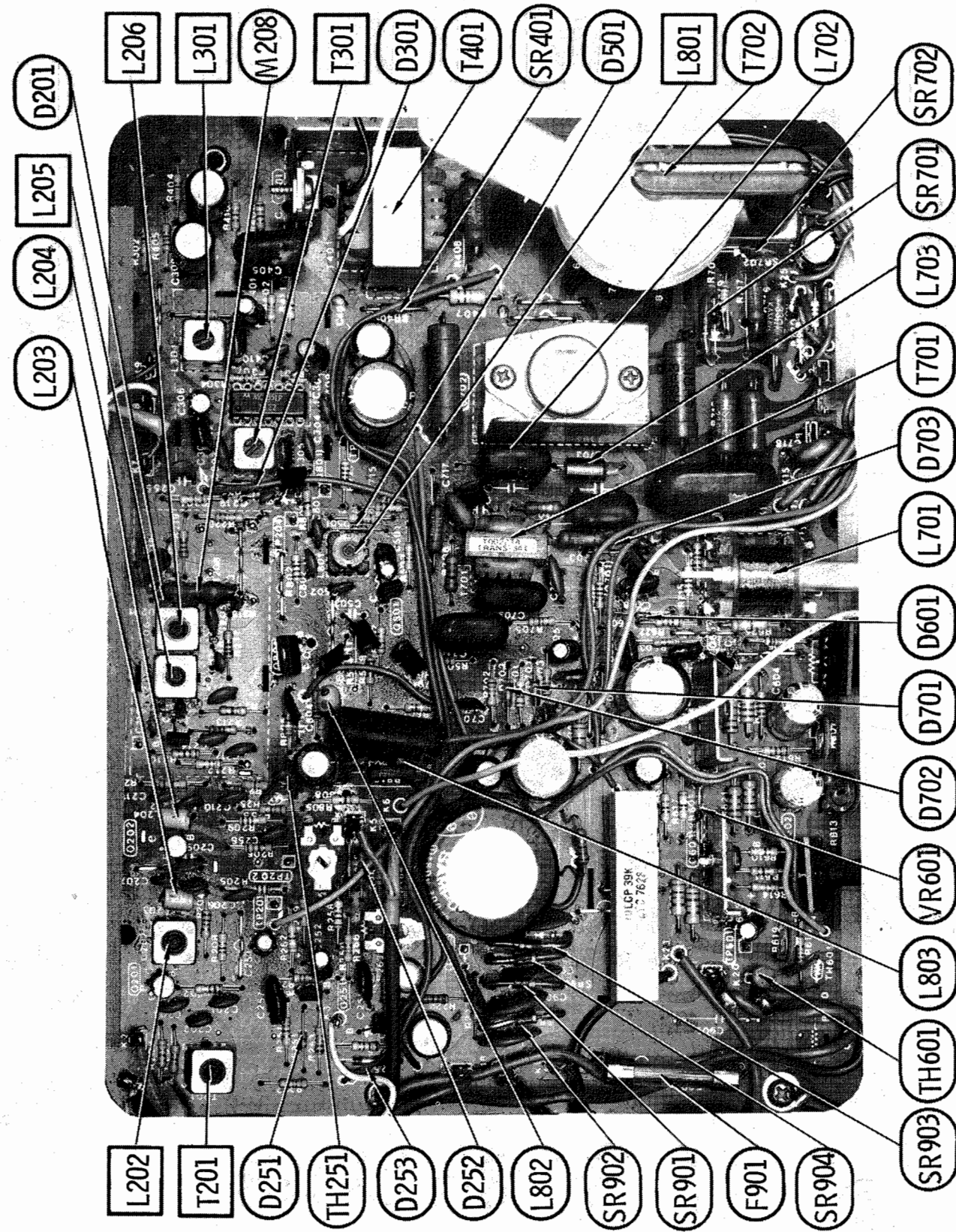




* Located on bottom of board

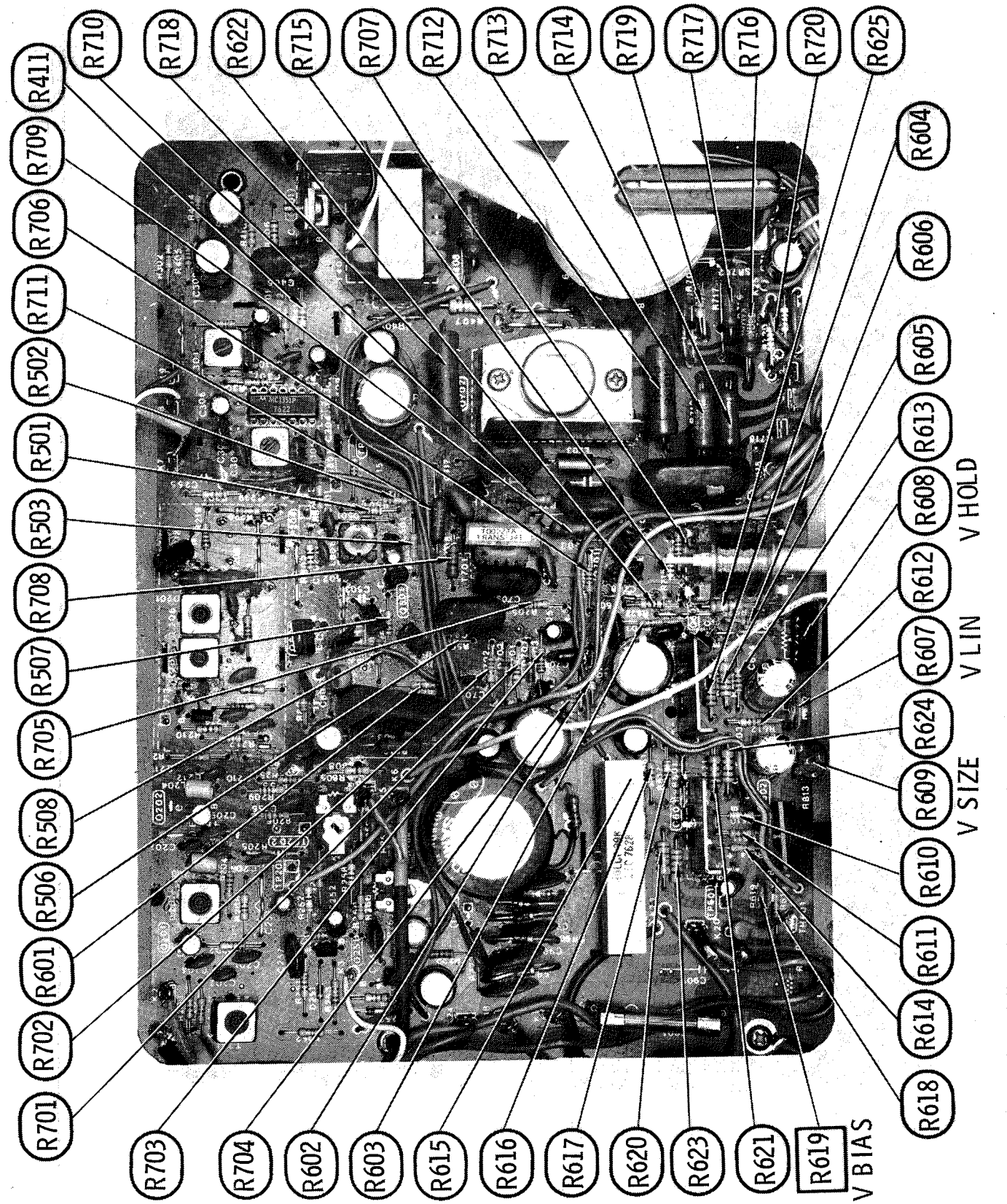
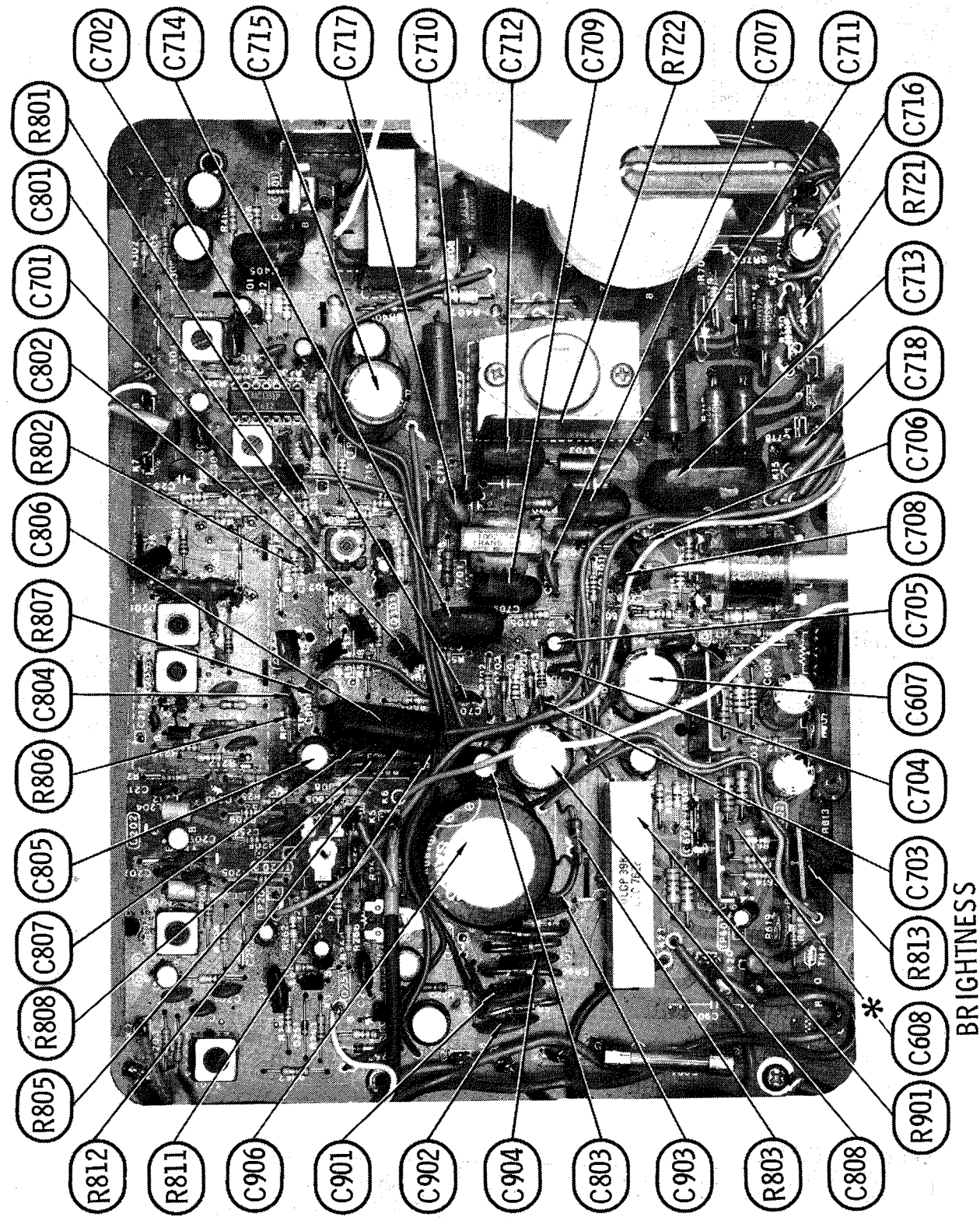


PRINTED BOARD

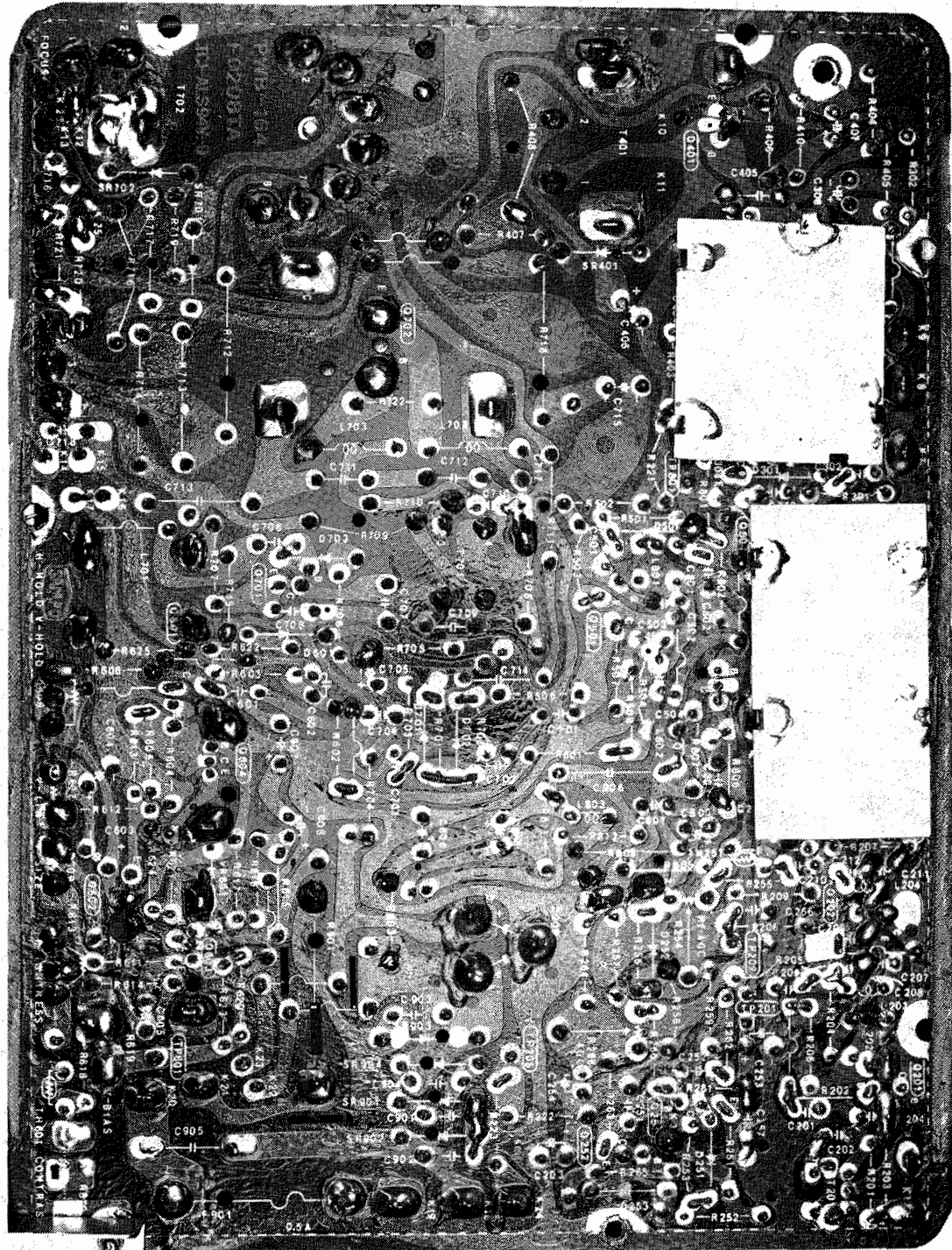


PRINTED BOARD

PRINTED BOARD



PRINTED BOARD



SHIELD LOCATION-PRINTED BOARD

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
J401	Jack	QJAKA0002TAZZ	Earphone
M101	Component Combination	#	Antenna Input
M102	Component Combination	#	Antenna Input
M901	Component Combination	RMPTA0009TAZZ	
P901	AC Power Cord	QACCU0013TA00 #	Polarized
SW901	Switch	#	Power On/Off (Part of Volume Control R303).
	Earphone	RPHOE0001TAZZ	
	Printed Circuit Board	DUNTK0042ASPX	Complete
	UHF Antenna	QANTL0014TAZZ	RUSSELL Replacement LIN-2H
	VHF Antenna	QANTRO011TAZZ	RUSSELL Assembly POR-4H
			RUSSELL Rod Replacement SIM-3H
	UHF Tuner	VTUMUTZ-YU2Z	
	VHF Tuner	VTUMFTZ-VU2Z	

For SAFETY use only equivalent replacement part.

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet Front, Includes Trim	DCABA1003ASPA	Knob, UHF Channel Selector	JKNBC0199TASB
Cabinet Rear, Includes Trim	DCABB1003ASPA	Knob, UHF Fine Tuning	JKNBK0069TASB
Knob, VHF Channel Selector	JKNBC0224TASA	Knob, UHF Indicator	JKNBNO028TASA
Knob, VHF Fine Tuning	JKNBK0242TASB	Knob, On-Off-Volume	JKNBK0078TASB

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17 KV)
Shielded Hook-up Wire	Use BELDEN No. 8401 or 8421 (Single-Conductor)
	8208 (Two-Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8528 (Solid) Available in 13 Colors
	8522 (Stranded) Available in 13 Colors
300-Ohm Tuner Input Lead	Use BELDEN No. 8225
300-Ohm Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) 4-Conductor
	8485 (Round) 5-Conductor
	8488 (Round) 8-Conductor

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L121	RF Choke	RCIL10074TAZZ RCILF0004TAZZ RCILF0004TAZZ RCIL10149TAZZ RCIL10150TAZZ RCIL10158TAZZ RCILF0005TAZZ # RCILF0005TAZZ # RCIL10204TAZZ VP-LF271K0000 VP-LF221K0000 RMPTD0001TAZZ RCIL10202TAZZ RCIL10077TAZZ			
L122	RF Choke				
L123	RF Choke				
L124	RF Choke				
L125	RF Choke				
L126	RF Choke				
L202	47.25MHz Trap				
L203	Video IF				
L204	Video IF				
L205	Video Det (Pri)				
L206	Video Det (Sec)				
L301	Sound Det				
L702	RF Choke (18 turns)				
L703	RF Choke (18 turns)				
L801	4.5MHz Trap				
L802	Peaking (270uH)				
L803	Peaking (220uH)				
M208	Video Det Filter				
T001	Balun				
T201	Video IF				
T301	Sound Take-off				

For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA				
		MFGR. PART No.	OTHER IDENTIFICATION	MILLER PART No.	THORDARSON PART No.	TRIAD PART No.
DY100	Yoke Horiz = 5.5mH 90° Vert = 3.7mH	RCILH4036TAZZ #	H4036TA #			
L701	Horiz Osc (Hold)	RCILB0023TAZZ	B0023TA			
T701	Horiz Driver	RTRNT0022TAZZ #	T0022TA #			
T702	Horiz Output	RTRNF2037TAZZ #	2037TA #			

For SAFETY use only equivalent replacement part.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T401	3200	8	RTRNS0064TAZZ # S0064TA (1)			# For SAFETY use only equivalent replacement part. (1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP401	3" PM 8 Ohms	VSP0080P-058A	30A05Z8R	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F901	.5A @ 250V Quick-acting Pigtail	QFSH5013TAZZ#		GJVI/2		318.500		

For SAFETY use only equivalent replacement part.

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V801	12VBRP4 # 12VBJP4 # (1)				# For SAFETY use only equivalent replacement part. (1) Used in some versions.

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D201	1N60	RH-DX0033TAZZ	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D251			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D252	1N34A		1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
D253	1N34A		1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
D301	1N34A		1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
D501			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D601			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D701	1N34A		1N34AS(7)	1N34A (7)	PTC207M(6)	HEPR9134A(7)	RE 86(6)	SK3087(7)	RT-200(7)	ECG110(6)
D702	1N34A									
D703			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC301	MC1351P	RH-1X0001TAZZ	GEIC-26		PTC745	HEPC6060P	RE 331-1C		TVMC-41	ECG748
Q201	2SC682A	(14)	GE-61 *	(IR)2SC682A	PTC126	HEPS0017	RE 28	SK3018	RT-187 *	ECG161
D251	2SC1855		GE-61 *	TR-95 *	PTC115 *	HEPS0020 *	RE 10 *	SK3018 *	RT-309 *	ECG108 *
Q202	2SC682A		GE-61 *	(IR)2SC682A	PTC126	HEPS0017	RE 28	SK3018 *	RT-187 *	ECG161
Q252	2SC1855		GE-61 *	TR-95 *	PTC115 *	HEPS0020 *	RE 10 *	SK3018 *	RT-309 *	ECG108 *
Q203	2SC717		GE-17 *	(IR)2SC717	PTC132 *	HEPS0020 *	RE 28 *	SK3018 *	RT-134	ECG161 *
Q251	2SC458C		GE-210 *	(IR)2SC458C	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
Q252	2SC458C		GE-210 *	(IR)2SC458C	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
Q401	2SC1447		GE-32				RE 191		RT-135	ECG198
Q501	2SA673D		GE-269	TR-28 *	PTC103 *	HEPS0026 *	RE 197 *	SK3114	RT-115 *	ECG290
Q601	2SC458C		GE-210 *	(IR)2SC458C	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
Q602	2SC1213D	#	GE-268	TR-25 *	PTC123 *	HEPS5014 *	RE 17 *	SK3024 *	RT-134	ECG289
Q603	2SC1162C		GE-57		PTC163	HEPS5000	RE 40	SK3190	RT-194	ECG184
Q604	(5)(12)		GE-58							
Q604	2SA715C				PTC162	HEPS5006	RE 41	SK3191	RT-195	ECG185
Q701	(5)(12)									
Q702	2SC983Y		GE-27 *	TR-32	PTC117 *	HEPS5025 *	RE 73 *	SK3044 *	RT-110 *	ECG171 *
Q702	2SC1922		GE-38	TR-93	PTC129A	HEPS7006	RE 32	SK3115	RT-139	ECG238
Q801	(13)									
Q802	2SC454C,B		GE-210 *	(IR)2SC454C	PTC115 *	HEPS0015 *	RE 10 *	SK3018 *	RT-187	ECG108 *
Q802	2SC1514		GE-251	WEP244			RE 191		RT-135	ECG198
SR401	1N4004	RH-DX0069TAZZ	GE-504A	5A4D	PTC201	HEPR0053	RE 49	SK3016	RT-214	ECG116
SR701		RH-DX0067TAZZ	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
SR702		RH-DX0068TAZZ	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
SR901	1N4004 #	RH-DX0069TAZZ	GE-504A	5A4D	PTC201	HEPR0053	RE 49	SK3016	RT-214	ECG116
SR902	1N4004 #	RH-DX0069TAZZ	GE-504A	5A4D	PTC201	HEPR0053	RE 49	SK3016	RT-214	ECG116
SR903	1N4004 #	RH-DX0069TAZZ	GE-504A	5A4D	PTC201	HEPR0053	RE 49	SK3016	RT-214	ECG116
SR904	1N4004 #	RH-DX0069TAZZ	GE-504A	5A4D	PTC201	HEPR0053	RE 49	SK3016	RT-214	ECG116
VR601		RH-VX0004TAZZ			PTC301					ECG601

* Lead configuration may vary from original.
For SAFETY use only equivalent replacement part.
(5) Half of complementary pair.
(6) Matched pair.
(7) Two required - select matched pair.
(12) Rating 8.0 WATTS @ 1.5 AMP.
(13) Rating 50 WATT @ 2.5 AMP.
(14) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C203	100 16V	VCEAAU1CW107Q	PC100-16	VTT100F16	QV1-95	EV-1230
C218	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C225	33 25V		PC30-25	VTT33D25	QV1-63	EV-1325
C252	3.3 25V		PC5-50	VTT3R3A50	QV1-23	EV-1318
C253	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C254	100 6.3V	VCEAAU0JW107Q	PC100-10	VTT100E10	QV1-93	EV-1130
C306	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C308	220 16V	VCEAAU1CW227Q	PC250-25	VTT220H16	QV1-117	EV-1240
C401	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C404	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C406	4.7 160V	VCEAAU2CW475R #	WBR5-450	TC50XB	QV1-117	TVA-1502
C407	220 16V	VCEAAU1CW227Q	PC250-25	VTT220H16	QV1-11	EV-1240
C501	1 50V		PC1-50	VTT1A50	QV1-55	EV-1615
C603	22 16V	RC-EZ0029TAZZ	PC25-25	VTT22B16	QV1-55	EV-1224
C604	22 16V	RC-EZ0029TAZZ	PC25-25	VTT22B16	QV1-41	EV-1224
C605	10 16V		PC10-25	VTT10B25	QV1-73	EV-1226
C606	47 16V		PC50-16	VTT47016	QV1-183	EV-1260
C607	1000 16V	VCEAAU1CW108Q	PC1000-16	VTT1000L16	QV1-23	EV-1318
C705	3.3 25V		PC5-50	VTT3R3A50	QV1-185	EV-1360
C715	1000 25V	VCEAAU1EW108Q	WBR1000-25	VTT1000M25	QV1-95	EV-1145
C716	100 16V	VCEAAU1CW107Q	PC100-16	VTT100F16		TVA-1334
C803	4.7 100V	VCEAAU2CW475R	PC5-100	VTT4R7D100	QV1-131	TVA-1509
C805	330 6.3V	VCEAAU0JW337Q	WBR300-35	VTT330G10		
C808	22 160V	#	WBR30-250	TC57B		
C906A	100 180V	VCEAAL2ZBA12Q#				
B	100 180V					

For SAFETY use only equivalent replacement part.

CAPACITORS

ITEM No.	RATING	MFRG. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
						Q-LINE GENERAL LINE
C121	100					
C122	18					
C123	100					
C124	25					
C125	6					
C126	.0022 Feedthru					
C127	.0022 Feedthru					
C128	.0022 Feedthru					
C129	33 Feedthru					
C135	120					
C100	33 NP0 1KV 10%				CN0433	10TCC-Q33
C201	.01		UK50-103	NP047	MAG5011	10TCC-Q47
C202	47 5%		DTZ-47		CN0447	
C204	.01		UK50-103		MAG5011	
C205	.01		UK50-103		MAG5011	
C206	.01		UK50-103		MAG5011	
C207	100 5%		DTZ-100	NP0100	CN0310	10TCC-T10
C208	100 5%		DTZ-100	NP0100	CN0310	10TCC-T10
C209	.01		UK50-103		MAG5011	
C210	.01		UK50-103		MAG5011	
C211	68 5%		DTZ-68	NP068	CN0468	10TCC-Q68
C212	47 5%		DTZ-47	NP047	CN0447	10TCC-Q47
C213	3		DTZ-3R3	NP03P3	CN0533	10TCC-V33
C214	.01		UK50-103		MAG5011	
C215	.01		UK50-103		MAG5011	
C216	1.3pF		DTZ-1R5	NP01P5	CN0515	10TCC-V15
C217	.01		UK50-103		MAG5011	
C219	2		DTZ-2R2	NP02P2	CN0522	10TCC-V22
C251	.047 10%			DPMS2S47	EW1A147	1PB-S47
C255	.001 10%		DD-102		GP210	10TS-D10
C256	.01		UK50-103		MAG5011	
C257	.1 10%			DPMS4P1	ENF4010	4PB-P10
C258	.1 10%			DPMS4P1	ENF4010	4PB-P10
C301	.047 10%			DPMS2S47	EW1A147	1PB-S47
C302	.0022		DD-222		GP222	5GA-D22
C303	.1 10%			DPMS4P1	ENF4010	4PB-P10
C304	.01		UK50-103		MAG5011	
C305	.047 10%			DPMS2S47	EW1A147	1PB-S47
C307	10		DTZ-10	NP010	CN0410	10TCC-Q10
C309	.01		UK50-103		MAG5011	
C405	.0068 630V				PVC16268	10PS-D68
C409	100		DD-101	GP100	GP310	10TS-T10
C410	330		DD-331	GP330	GP333	10TS-T33
C411	.001		DD-102G	GP1000	GP210	5GA-D10
C502	330 10%		DD-331	GP330	GP333	10TS-T33
C503	.0015 10%			DPMS6D15	ENF6215	6PS-D15
C504	.0015 10%			DPMS6D15	ENF6215	6PS-D15

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

CAPACITORS (cont)

ITEM No.	RATING	MFRG. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
						Q-LINE GENERAL LINE
C601	.068 10%			WMF1S68	EW1A168	QF1-195
C602	.033 50V 10%		DD-331		M192P3339R8	1PB-S68
C608	330 10%			GP330	GP333	192P3339R8
C701	.0033 10%			WMF1D33	EW1A233	10TS-T33
C702	.0033 10%			WMF1033	EW1A233	1PB-D33
C703	.01 10%			DPMS4S1	EW1A110	1PB-D33
C704	.047 10%			DPMS2S47	EW1A147	4PB-S10
C706	.0068 5%		DD-331	CD19FA682J03	SX268	1PB-S47
C707	330 500V 10%			GP330	GP333	279P68255WB3
C708	.1 5%				SXM010	10TS-T33
C709	.0022 630V 10%			OPMS16D22	PVC16222	10PS-D22
C710	.01 10%			DPMS4S1	EW1A110	4PB-S10
C711	.0015 630V 10%	VCQPSU2JA152K #		DPMS16D15	PVC16215	10PS-D15
C712	.0015 630V 10%	VCQPSU2JA152K #		DPMS16D15	PVC16215	10PS-D15
C713	.15 200V 10%	VCQPSU2DA154K #		DPMS2P15	EW1A2015	2PB-P15
C714	.033 200V 10%			OPMS6S33	EW1A133	6PS-S33
C717	330 2KV 10%	VCCSPU3DL331K #				
C718	330 2KV 10%	VCCSPU3DL331K #				
C801	56 5%				CN0456	10TCC-Q56
C802	68 5%		DTZ-68	NP068	CN0468	10TCC-Q68
C804	.0022 10%			DPMS6D22	EW1A222	6PS-D22
C806	.15 200V 10%			DPMS2P15	EW1A2015	2PB-P15
C807	220 5%		DTZ-220			10TCC-T22
C901	.01 500V	VCKZPU2HL103P#	DD-1032	GP10000	GP110	5GA-S10
C902	.01 500V	VCKZPU2HL103P#	DD-1032	GP10000	GP110	5GA-S10
C903	.01 500V	VCKZPU2HL103P#	DD-1032	GP10000	GP110	5GA-S10
C904	.01 500V	VCKZPU2HL103P#	DD-1032	GP10000	GP110	5GA-S10

For SAFETY use only equivalent replacement part.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFRG. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No. TRW PART No.
R254	RF AGC	10K	RVR-M7100TAZZ	T-10K (3)	C-103 (3)	MTC14L1 (3) X201R103B (3)
R266	AGC	1000	RVR-M7099TAZZ	T-1000 (3)	C-102 (3)	MTC13L1 (3) X201R102B (3)
R303	Volume/Switch	10K	RVR-A3008TAZZ #			
R607	Vert Linearity	5000	RVR-M7047TAZZ	T-5000 (2)	C-502 (2)	MTC53L1 (2) X201R502B (2)
R608	Vert Hold	100K	RVR-M7050TAZZ			
R609	Vert Size	50K	RVR-M7048TAZZ	T-50K (2)	C-503 (2)	MTC54L1 (2) X201R503B (2)
R619	Vert Bias	50K	RVR-M7048TAZZ	T-50K (2)	C-503 (2)	MTC54L1 (2) X201R503B (2)
R810	Contrast	1000	RVR-E1007TAZZ	F5-1000 (1), SN100	NP-1000-V (1), NML-A-300	RU13R,SL36,SL1500 or [UA13R (1), SN1125]
R813	Brightness	250K	RVR-M7078TAZZ			BU1 (1),CF37, SS6A

For SAFETY use only equivalent replacement part.

(1) Enlarge mounting hole.

(2) Cut off one of the end terminals and bend to fit PC board.

(3) For horizontal mounting, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC Board.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFRG. PART No.			WORKMAN PART No.	MFRG. PART No.
R408	2400 5% 2W Film		VRSP3DB242J #	R718	18 10% 3W Film		VRSP3LB180K #
R709	2200 5% 1W Film		#	R803	1200 5% 1/4W Carbon	CD-1200	#
R712	39 10% 3W Film		VRSP3LB390K #	R901	39 10% 10W WW	10W-SQ-40	VRWKV4AC390K #
R713	22 10% 2W Film		#	R902	180 10% 10W WW	10W-SQ-175	VRWCL4AD181K #
	22 5% 2W Film		VRSP3DB220J # (1)	TH251	1800 Cold NTC	FR-1028	2KD-5
R714	33 10% 2W Film		VRSP3DB330J # (1)	TH601	5200 Cold NTC	FS-1219	5KD-5
R716	33 5% 2W Film		VRSP3DB330J # (1)				
	33 10% 2W Film		VRSP3DB330J # (1)				

For SAFETY use only equivalent replacement part.

(1) Alternate